

INTRODUCTION

A regional assessment of the surficial aquifers in Dade, Broward, and Palm Beach Counties, Florida, including the Biscayne aquifer, was begun in 1979 by the U.S. Geological Survey, in cooperation with the South Florida Water Management District. The purpose of the first phase of the project was to determine the geologic, hydrologic, and water-quality data currently available in the files of the U.S. Geological Survey and other agencies. This report summarizes through tables and maps the types of data available for Dade County. A similar report for Broward County was recently published (Sonenshein and others, 1983), and a similar report for Palm Beach County is planned for publication soon.

SITE NUMBERING

Ground-Water Sites

Each site is assigned a unique 15-digit site identification number. The first six digits denote the latitude in degrees, minutes, and seconds; the next seven digits denote the longitude in degrees, minutes, and seconds. The two digits at the end of the number refer to distance between wells with the same latitude and longitude. Examples of site identification numbers are 2545406801729001, which refers to two wells that have equal coordinates - latitude 25°40' north and longitude 080°17'20" west. The two digits, 01 and 02, are at the end of the site identification numbers to distinguish between two wells. In some cases, the latitude and longitude location assigned to a well may have been updated more recently. When this occurs, the site identification number is maintained.

An agency number is also assigned to each well. Numbers assigned by the U.S. Geological Survey consist of a one or two letter prefix and a sequence number, such as NP-42 and S-196. The U.S. Army Corps of Engineers' numbers are preceded by the letters "CR."

SELECTED REFERENCES

Appel, C.A., and Klein, Howard, 1969, Hydrogeologic data related to establishment of a pumping station in the Everglades National Park, Florida: U.S. Geological Survey Professional Paper 463, p. 36.

Brown, R.W., and Turner, G.G., 1947, Surface-water encroachment in limestone at Silver Bluff, Miami, Florida: Economic Geology, v. 40.

Causarán, C.R., 1982, Annotated bibliography of the geology and hydrology of the surficial aquifers in Dade, Broward, and Palm Beach Counties, Florida: Geological Survey Open-File Report 82-154, 59 p.

Craig, W.C., 1946, Geology of Florida: Florida Geological Survey Geological Bulletin no. 249, 342 p.

Cross, W.P., and Love, S.K., 1942, Ground water in southern Florida: American Water Works Association Journal, v. 34, no. 4, p. 36.

Hoy, N.H., and Schmitt, M.C., 1952, A study of the Tamiami Trail area, Florida: U.S. Geological Survey Professional Paper 236, p. 3, 283-296.

Klein, Howard, 1965, Probable effect of Canal 111 on saltwater encroachment, southern Dade County, Florida: U.S. Geological Survey open-file report FL-65002, 26 p.

Klein, Howard, 1961, Hydrologic conditions in the vicinity of Lake 30, northern Dade County, Florida: Florida Geological Survey Report of Investigations 24, part I, 24 p.

All surface-water stations have also been assigned 15-digit latitude, longitude, and sequence numbers, which in the absence of a downstream order number, are used for data storage.

MAP NUMBERING

A composite list of the wells used to assign the map numbers, beginning in the southeast corner of Dade County and moving from east to west along a second of latitude and then east to west along the next second of latitude, is given below.

Surface-water stations were assigned map numbers separately from well sites, except that surface-water stations at the same control structure have identical map numbers.

SOURCES OF DATA

The agency cited has the data in its files, although the agency may not have collected the data. The agencies cited in this report are: Broward County Engineers, Water Management Division (BCWMD); Florida Geological Survey, Report of Investigations 47, 47 p.

Leach, R.L., and Shreve, C.B., 1961, Hydrologic data in the Snake Creek Canal area, Dade County, Florida: Florida Geological Survey Report of Investigations 24, part III, 33 p.

Parker, G.G., 1945, Saltwater encroachment in southern Florida: Journal of the American Water Works Association, v. 37, no. 6, p. 526-542.

Parker, G.G., and Cooke, C.W., 1944, Late Cenozoic geology of southern Florida, with a discussion of the ground water: Florida Geological Survey Geological Bulletin no. 27, 119 p. and 5 sheets.

Parker, G.G., Ferguson, G.E., Love, S.K., and others, 1965, Water resources of western Florida, with special reference to geology and ground water of the Miami area: U.S. Geological Survey Water-Supply Paper 1255, 96 p.

Puri, H.S., 1960, Late Cenozoic stratigraphy and sedimentation of central Florida: Southeastern Geological Society field trip.

Schmidt, J., Klein, Howard, and Hoy, N.D., 1968, Biscayne aquifer of Dade and Broward Counties, Florida: Florida Geological Survey Report of Investigations 17, 56 p.

Table 1 lists well-construction data and frequency of data collection for ground-water level observation sites (sheet 2, figs. 3-7) which were part of a monitoring network that has since been destroyed or no longer usable and have not been collected from the table.

Table 2 lists geologic and geophysical data available for selected wells (sheet 1, figs. 1 and 2). Most of the logs can be found in publications listed in the references at the end of this report.

Table 3 lists well-construction data and frequency of data collection for selected sites (sheet 2, figs. 3-7) which were part of a monitoring network that has since been destroyed or no longer usable and have not been collected from the table.

Table 4 lists active surface-water data-collection sites (sheet 2, figs. 3-7) where either stage or stage and discharge are measured. The "site location" section is a brief description of the general area of the data-collection site. For some U.S. Geological Survey sites, this name or a similar name has been used for site identification in earlier publications.

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